Fisheries and Habitat Conservation

Environmental Contaminants Program

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Alaska's people and economy depend on the health of its fish and wildlife resources. The Environmental Contaminants Program within the U.S. Fish & Wildlife Service partners with others to conserve, protect, and enhance Alaska's fish and wildlife populations.

Responding to Emergencies

The Environmental Contaminants (EC) Program coordinates U.S. Fish & Wildlife Service (Service) oil spill response efforts within the Unified Command to minimize injury to trust resources. EC biologists continue to coordinate with State and Federal agencies, private industry, and response organizations between spills.

The EC Program also assesses injury to trust resources following significant spills and implements restoration projects that benefit injured species or habitats. Trust resources managed by the Service include refuge lands, migratory birds, endangered species, and some marine mammals and fisheries.

Significant spills have occurred in Alaska since the *Exxon Valdez* in 1989; two are highlighted below.

Selendang Ayu - The December, 2004 grounding of the freighter *M/V Selendang Ayu* spilled more than 335,000 gallons of intermediate fuel oil and marine diesel in the waters off Unalaska Island. Over 1,800 oiled bird and six sea otter carcasses were collected during the response, but represent just a fraction of total wildlife losses from this incident.

Oiled bird carcasses collected during the Selendang Ayu spill. USFWS.

EC staff, working closely with other trustees, secured an unprecedented $4.6 million authorization from the National Pollution Fund Center for Natural Resource Damage Assessment and Restoration initiation during this incident. These funds, along with funding from the Responsible Party, were used to collect time-critical data following the spill that will be used to determine the extent of the injuries to trust resources.

Kuroshima - The seafood freighter *M/V Kuroshima* grounded on Unalaska Island in 1997, spilling 39,000 gallons of heavy fuel oil. Following the spill, more than 150 bird carcasses were collected, and trustees estimated that at least 2,000 birds were killed. The EC Program staff represents DOI on the trustee council charged with implementing restoration.

As part of the case settlement, the Service conducted a bird restoration project in cooperation with the local Qawalangin Tribe; eradicating introduced arctic foxes which prey on breeding birds. A 2005 survey confirmed that the fox removal was successful and bird numbers are increasing.

Service and other agency personnel evaluate oiled shoreline and cleanup efforts on the Selendang Ayu spill, Unalaska, AK. USFWS.

Thriving Populations

Contaminants, including pesticides, industrial chemicals, and heavy metals are transported to Alaska atmospherically and are of concern due to their persistence and toxicity. Local contamination sources such as landfills and leaking drums also exist. The EC Program investigates

contaminant threats to Service trust resources, focusing on the following core areas:

Contaminants studies were conducted in salmon, an important subsistence resource. USFWS.

Subsistence Species - Environmental contaminants may affect the population health and viability of subsistence species, impacting the continued availability of these resources.

Senator Stevens provided funding used to study contaminants in chinook and chum salmon from declining runs on the Yukon and Kuskokwim rivers. EC biologists concluded that contaminants were not impairing the viability of these salmon runs and our human health partners (including the State of Alaska and tribal health groups) determined that these salmon were safe and encouraged rural Alaskans to continue eating their traditional foods.

Declining and Threatened Species Contaminants may hamper recovery of listed species. Recently, we studied exposure to lead shot, and impacts of chronic oiling, on threatened Steller's eiders.

We also proactively investigate factors contributing to species declines, as this information can help stem further population reductions.

Abnormalities - High abnormality rates have been observed in wood frogs on the Kenai National Wildlife Refuge and in black-capped chickadees from Southcentral Alaska. The EC Program is studying these abnormalities in cooperation with several partners.

The EC program is investigating the high rate of abnormal wood frogs, like this one with a deformed hind leg, on Alaska Refuges. USFWS.

Clean Refuges

Alaska's National Wildlife Refuges are often envisioned as pristine, but oil exploration and production, mining, military activities, and even nuclear testing have introduced contaminants to refuges. These sites are often abandoned, with little or no cleanup. The largest contaminated sites on refuges are associated with former military installations, including sites on Adak, Amchitka, Kiska and Attu Islands.

The EC Program helps address refuge contamination issues by:

- Designing scientifically sound contaminant studies of refuge resources
- Helping direct cleanup efforts conducted on refuge lands
- Coordinating Service pesticide use via an integrated pest management program
- Evaluating land transfers to ensure the Service does not acquire contaminated property.

Summary

The EC Program plays a vital role in responding to spills, and restoring injured resources. We help clean up the legacy of contamination on National Wildlife Refuges, and provide scientifically sound information regarding contaminant impacts to Service trust resources, benefiting resource managers, health professionals, and the public.

Abandoned drums on Tanaga Island, part of the Alaska Maritime NWR. USFWS.

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